

CRYSTAL UNITS

SMD TUNING FORK CRYSTAL

ACTUAL SIZE: 

D31N SERIES

APPLICATIONS

- ▶ Real Time Clock
- ▶ System in sleep mode or low energy mode Timekeeping
- ▶ Bluetooth, DVBH, WLAN

FEATURES

- ▶ Miniature SMD Ceramic Package With Metal Lid
- ▶ Low Package Height And Extended Temperature Range
- ▶ Low Aging, Low Power Consumption, High Shock

Specification

MODEL

FREQUENCY

FREQUENCY RANGE	KHz	32.768
FREQUENCY TOLERANCE (25°C)	ppm	± 10 ~ ± 20
PARABOLIC CURVATURE CONSTANT*	ppm / °C ²	-0.035 Typ.
TURNOVER TEMPERATURE RANGE	°C	+ 20 ~ + 30

ENVIRONMENTAL CONDITION

OPERATING TEMPERATURE RANGE	°C	- 40 ~ + 85 Or - 40 ~ + 105 Or - 40 ~ + 125
STORAGE TEMPERATURE RANGE	°C	- 55 ~ + 125
AGING / YEAR	ppm	± 3

ELECTRICAL SPECIFICATIONS

TEST CIRCUIT		S&A 250B With π Fixture
LOAD CAPACITANCE	pF	6 / 7 / 9 / 12.5
DRIVE LEVEL	uW	1.0 Max.
EQUIVALENT SERIES RESISTANCE	Ω	70K Max.
SHUNT CAPACITANCE	pF	1.2 Typ.
MOTIONAL CAPACITANCE	fF	3.7 Typ.
INSULATION RESISTANCE	Ω	500M Min.

*Frequency stability is given as $\Delta F/F_0 = K \cdot (T - T_0)^2$, where K is parabolic curvature constant.

**Specification subject to change without notice.

Dimension(mm)

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